

# EE / CprE / CybE / SE / SD 491– sdddec24-17

## SmartPark: IoT-Driven Automatic Parking Solution

### Week 9 Report

*April 3 – April 9, 2024*

*Client / Advisor: Md Maruf Ahamed2*

#### Team Members:

William Clemmons - Project Lead and Software Design.

Kennedy Reiling - Client Interaction and Hardware Design.

Brian Witherspoon - Hardware and Software Design.

Ethan Haberer - Hardware Design and Quality Control.

Zachary Sears - Hardware Design and Quality Control.

Mubassir Serneabat Sudipto - Client Interaction, Quality Control, and Software Design.

#### Past Week Accomplishments

- Application Team:
  - Successfully created our initial User Interface design using Figma for the application.
  - Conducted an in-depth analysis of Stripe's User Interface to integrate payment functionalities.
  - Began acquainting ourselves with additional necessary technologies for setting up a Firebase server that transmits simple data communication.
- Hardware Team:
  - Commenced the integration of tested simulations into tangible hardware components.

#### Pending Issues

- Secure the procurement of new electronic boards from ETG to advance the development phase.
- Determine the specific setup requirements for our team's Stripe account to ensure seamless financial operations.

## Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
William Clemmons	Learned Figma to help the team create our prototype. Also, helped create the prototype.	3	31
Kennedey Reiling	Furthered my understanding of the Wifi board and nano boards we will use.	2	28
Brian Witherspoon	Did further Arduino prototyping and researched the bluetooth capabilities of Arduino Nano boards.	2	28
Ethan Haberer	The app team met to complete the UI design using Figma.	3	30
Zachary Sears	Created a small prototype implementing our simulation.	2	29
Mubassir Serneabat Sudipto	Acquired proficiency in Figma to contribute to our team's design efforts. Additionally, embarked on expanding my technical expertise to encompass more of the Firebase server, which will facilitate data communication processes.	3	31

## Plans for Coming Week

- Application Team:
  - Start app development.
  - Create a payment page using Stripe API for our application.
  - Pursue advanced methodologies and strategic procedures to maximize the capabilities and performance of our Firebase server.
- Hardware Team:
  - Continue the teamwork with Arduino boards and sensors, advancing our understanding and capabilities in hardware development.
  - Continue to implement the tested simulations into physical hardware.
  - Place an order to ETG about the Wi-Fi board and Nanos.
  - Start to test the concept of using the wifi board and Bluetooth module.